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Tom Taggart  
Attorney at Law  
8 Ransom Rd., Athens, Ohio 45701

Tel. (740) 592-1833

[Tpt@eurekanet.com](mailto:Tpt@eurekanet.com)

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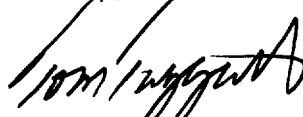
Magalie Roman Salas  
Office of the Secretary  
FCC  
445 12<sup>th</sup> St., SW  
Washington, D.C. 20554

RE: EB Docket #01-66; RM-9156, RM-9215

Dear Ms. Salas

Enclosed please find an original plus six copies, of the Comments of Seven Ranges Radio Company, Inc., St. Marys, WV in response to the Notice of Proposed Rulemaking regarding changes to the Commission's Rules for the Emergency Alert System.

Sincerely yours



Tom Taggart, for  
Seven Ranges Radio Co., Inc.

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Before the  
Federal Communications Commission  
Washington, D.C. 20554

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In the Matter of :  
  
Amendment of Part 11 of the Commission's : EB docket No. 01-66  
Rules, Regarding the Emergency Alert System : RM-9156, RM-9125  
:

**Comments of Seven Ranges Radio Co., Inc.**

1. The Commission, in response to petitions from the National Weather Service ("NWS") and the Society of Broadcast Engineers ("SBE"), proposes changes to Part 11 of its Rules. Seven Ranges Radio Company, Inc., a West Virginia corporation, and licensee of two FM broadcast stations, believes the time is ripe for a more thorough reexamination of the Emergency Alert System ("EAS").<sup>1</sup>

2. All EAS, we learn from the *Notice*, is divided into two parts. There is the compulsory system, a daisy-chain network for the relay of presidential messages, that is only slightly changed from the Conelrad system of the Cold War era. The SBE seeks changes to the rules to make this system less onerous, and more practical. Then there is the "voluntary" system, for public notice of regional emergencies. The NWS seeks to make this system more complicated, albeit more accessible by the public.

3. Commissioner Furchtgott-Roth, in his dissenting statement, questioned the issuance of rules for the portion of the system that is intended to be "voluntary." How, he queries, does one enforce

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<sup>1</sup>WRRR-FM, St. Marys, WV, and WNMR (FM), New Martinsville, WV, the latter operating under automatic program test authority pursuant to a construction permit.

“voluntary” rules? His view is that if the Commission mandates a service, that the service should be mandatory, not voluntary. Further, he believes that the Commission should have issued a “Notice of Inquiry” to investigate the state of EAS, before going forward with this proposed rule making. We would join in his suggestion for a further Notice of Inquiry concerning the EAS rules. We disagree with his position that all EAS services should be mandatory.

### **The “Compulsory System”**

4. Under the present system, all broadcast stations must purchase type-approved EAS decoding and encoding equipment<sup>2</sup>. All stations must conduct a weekly test of their encoding equipment<sup>3</sup>; under present rules, the frequency-shift keyed (“FSK”) tones must modulate the program channel at an 80% or better level<sup>4</sup>. All stations must monitor two sources of emergency information. Implied in this rule is that those sources reflect the monitoring assignments dictated by the “State Plan” in place in each state<sup>5</sup>. Monthly, stations must be able to decode, and within 15 minutes, relay a “required monthly test” (“RMT”)<sup>6</sup>. The sole purpose of this system is to provide a means of relaying an emergency action notification, or “EAN,” and a presidential message, in time of national crisis. Under this compulsory system, the only choice left to stations is whether to carry this EAN and presidential message, or leave the air as a “non-participating station.”<sup>7</sup>

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<sup>2</sup>Sec. 11.11

<sup>3</sup>Sec. 11.61(a)(2)

<sup>4</sup>Sec. 11.51 (f)

<sup>5</sup>Sec. 11.52 (d),

<sup>6</sup>Sec. 11.61(a)(1)

<sup>7</sup>Sec. 11.18(f), 11.19

5. SBE proposed several changes to existing rules. They proposed to reduce the modulation level required for the FSK test and alert tones. They propose to extend the time for relay of the RMT from 15 to 60 minutes, and change the frequency of these tests from monthly, to quarterly. Finally, SBE proposes to allow stations to relay presidential audio, during an “EAN,” from any audio source, particularly national radio and television networks, rather than rely upon a “daisy-chain” of AM and FM stations for the emergency program audio.

6. Under Conelrad, and later, EBS, there were two methods of relaying these presidential emergency messages. In the *Notice*, the Commission relates that what is now known as the “EAN Network” used specific entry points into the national news wire services, as well as the national radio and television networks as a means to relay national emergency messages. As a back up, the Commission created what is now called the “PEP Network,” of certain key clear channel AM stations that could also serve as program relays in time of emergency.

7. Both systems date from the cold war era. At the time, the wire services and networks relied upon a nationwide terrestrial system of (mostly) A.T.& T. coaxial and microwave facilities. Now, A.T. & T. offers cellular telephones, cable TV, internet and long-distance services; most of their original microwave facilities have been sold. “Clear Channel” refers to a broadcast conglomerate, rather than to any frequency in the AM band, and most national radio and television networks use satellites for the transmission of their programs. As the Commission notes, President Clinton ordered the end of the “EAN Network” in 1995. We note that the Commission proposes to

delete references to this system in the rules. A starting point should be the “EAS Handbook,<sup>8</sup>” which refers to EAN verification codes that were eliminated several years ago.

8. The SBE proposes to eliminate the “PEP Network” as the sole source of presidential audio during a national emergency. Even though FM, rather than AM, is now the common mode of relay, the multiple hop nature of a “daisy-chain” network, whether off-air, or FM sub carrier, invites degradation of the audio. More to the point, the SBE notes, is the time differential between terrestrial relay and satellite network feeds. This can result in a loss of synchronization between audio and video feeds. We would support this proposal as reflecting common sense.

9. It would appear that the sole rationale for the “compulsory” portion of the EAS rules is to maintain a system for disseminating national emergency programming. Allowing alternative sources for presidential audio during such emergencies, such as national network audio sources, calls in to question the rationale for many of the present EAS rules, particularly the rules concerning RMT’s. Hence, we would propose a wider reevaluating of the EAS system.

#### **Required Monthly Tests (RMT)**

10. SBE proposed to extend the time for the relay of the RMT from 15 to 60 minutes, and to reduce the frequency of these tests from monthly to quarterly. The Commission accepted only their first proposal. We would propose that the Commission eliminate the requirement to relay the RMT. We would also propose that the Commission remove the requirement that stations must monitor sources assigned under the state plan. If the purpose of the compulsory EAS system is to have a method of receiving national emergency messages, the logical source to monitor would be a

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<sup>8</sup>Sec. 11.15 requires stations to keep this obsolete document in the control room, to further the confusion and befuddlement of the air staff.

source that will have a direct source of network audio, and that provides monthly tests of the decoder.

11. Therefore, we propose that the Commission amend its rules to allow stations to comply with the requirements of Part 11 by monitoring any source (including non-broadcast sources) that (A) provide monthly transmission of required monthly tests, and (B) would provide a source of presidential messages and other information during a national emergency. Since most EAS decoders provide printed reports of alerts received, these reports, inserted in the station log, should be sufficient to demonstrate proper operation of that station's EAS decoder. Hence, we also propose that the Commission delete the requirement that stations relay the Required Monthly Test.

12. Under 47 CFR Sec. 11.51(k)(1), unattended stations must automatically relay alerts coded EAN, as well as the RMT. Stations manned full-time, such as our two stations, are not required to have the EAS equipment inserted into the program line. Most decoders can be re-programmed to insert or delete other codes for automatic re-transmission. Presumably, with this rule change, unattended stations could re-program their decoders to discontinue the relay of the RMT.

### **State Plan Requirements**

13. Under the present regulations, a Federally-approved "State Plan" establishes a system of monitoring assignments for broadcast stations and cable systems in each state<sup>9</sup>. In West Virginia, this plan relies primarily on off-air relay from certain primary stations in Charleston, the state capitol.

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<sup>9</sup>Sec. 11.21. The WV state plan requires us to monitor a Class C AM station on 1230, about 20 miles away, or a Class B FM. Obviously, the AM monitoring assignment is absurd. We have a combined studio-transmitter site. The (state relay)FM station is on 95.1, we operate on 93.9 with 17 KW. ERP. We have been able to receive this station only after we installed a high-pass filter ahead of the tuner that feeds the EAS system.

Both the “EAS Handbook” and Sec. 11.51 (m) appear to require West Virginia broadcast stations and cable systems to follow this rigid plan.

14. Apparently, the purpose of a state plan, and the monitoring assignments, is to create a statewide duplicate of the national “PEP Network” for the use by state emergency officials. However, there is no requirement in the rules for local stations to relay any messages originating from this statewide network except for the RMT’s, and any EAN. Under the West Virginia plan, the Charleston primary stations and Charleston NWS alternate the origination of the RMT. The West Virginia plan does not indicate whom the state primary stations monitor (other than each other), presumably, presidential emergency messages would really originate from one of the national radio networks carried by the state primary stations.

15. Hence, we question the need for mandatory compliance with the monitoring requirements of these state plans. As we note above, if the purpose of the compulsory EAS system is to insure the ability of stations to relay presidential messages, it should be sufficient for local stations to demonstrate the ability to receive an RMT from any source, including non-broadcast sources. We are affiliates of the USA Radio network, presumably that network has facilities to transmit a live presidential broadcast from Washington (or another location) to their affiliates. We can also receive a strong signal from Ohio University’s WOUB-FM. The WOUB radio and TV studios have NPR and PBS satellite receive terminals at their studios. Hence, if the rules are amended to allow the relay presidential audio from any source, we have no need of the “daisy-chain” system established under the West Virginia plan.

16. Except for city-states such as Rhode Island and Delaware, a “state plan,” such as the West Virginia plan, is of little value to stations such as ours, on the state border, and many miles from

the state capitol. Our weather comes from Ohio, from the west. Most of our listeners live and work in the flood plain of the Ohio River valley; our major floods come from the northeast, from Pittsburgh. Therefore we rely upon the Pittsburgh NWS weather radio for weather alerts for our coverage area, not the Charleston NWS weather radio<sup>10</sup>. Charleston NWS does not provide either forecasts or weather alerts for the counties in our coverage area. We monitor WOUB-FM, because that station alerts our staff to severe weather moving in from the west. That station also relays weather alerts for Washington, Noble and Monroe counties in Ohio, which are part of our coverage area. In addition, we maintain a DTN satellite terminal, which provides a real-time weather-radar display, as well as a text display of NWS forecasts and alerts.

17. The Ohio Valley is heavily industrialized, our main industry, chemicals. Each West Virginia county must have a local emergency plan<sup>11</sup>, the plants in our county would report emergency alerts to our station under the local plan. The main road and railroad run through downtown St. Marys, our city of license. Should a chemical spill require evacuation of the city, we have back up facilities for both sheriff and police radio at our hilltop studios. Similarly, in Wood County (Parkersburg), station WXIL-FM is the contact point for emergency officials in that county. While that station is our monitoring assignment under the state plan, the real value of that station to us is for the relay of emergency information from Wood County, which also part of our coverage area. The relay of a severe weather alert, or chemical spill warning for Kanawha County (Charleston, WV),

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<sup>10</sup> Which is apparently our monitoring assignment, under the “state plan,” although the plan is vague on this point.

<sup>11</sup> A requirement of state law.



would serve no purpose for our listeners. Hence, we question the relevance of the state plan, if it is not needed for the EAN relay.

18. However, information about a chemical spill in Washington County, Ohio is of vital importance to our listeners. West Virginia is separated from Ohio by the Ohio River, which, in most places, is only about a quarter mile wide. Under EBS, the Marietta-Parkersburg radio market was organized as a separate emergency area. The Marietta CPCS-1 monitored the Parkersburg CPCS-1, and vice versa. Hence, emergency information could be shared across the state borders. The present rules discourage the implementation of such regional plans.

19. We would also note that we rarely receive an RMT from our assigned (local relay) station under the West Virginia plan. Apparently, that station is unable to reliably receive any of its monitoring assignments, all Charleston stations, at its present studio location, at least not with a sufficient signal to decode EAS. We routinely receive RMT's from WOUB-FM, Athens, Ohio<sup>12</sup>. However, we are not assigned to monitor that station. We would note that the author has heard only one statewide emergency alert in the twenty-five odd years since EBS was first implemented. That alert, for a blizzard that never materialized, originated from the office of West Virginia Governor Rockefeller, and was relayed by a Marietta (Ohio) station, under the local Marietta-Parkersburg plan.

### **Modulation Levels**

20. Since the origination of EBS, in the 70's, broadcast engineers have been aware that the two-tone alert signal would not sufficiently drive the multi-band AM processors in common use by the then-dominant AM stations. While there were a variety of schemes to insert these tones beyond

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<sup>12</sup>Because we do not receive RMT's from WXIL routinely, we have begun relaying RMT's from WOUB..

the compressor and clipper stages of this equipment, for most stations this proved overly complex. Hence, many stations just inserted the EBS tones into their regular program path. This rarely caused problems; the decoders of that era were more sensitive to differing levels in the two tones (a maintenance problem)<sup>13</sup>, than to the overall modulation level of the combined tones.

21. In our area, reception of NWS weather radio is difficult. There is no local NWS radio station serving our area. We monitor Pittsburgh NWS from stations at High Hill and Bridgeport, Ohio. The signal from these low-powered, narrow-band FM VHF stations is often very weak and noisy, sometimes, just barely out of the noise. However, we routinely receive EAS alert broadcasts from these stations. Hence, it does not appear that the modulation level of the FSK alert tones are very critical for FM transmission, and we see no problem with the proposed reduction of modulation levels from 80 to 50%.

22. From discussions with Gorman-Redlich, the manufacturer of our decoder, it appears that reliable reception of EAS alerts cannot be expected from AM stations. The problem is not the signal to noise levels, but impulse noise, such as lightning static in the summer, that can override the AM signal, even close to the transmitter. Since the system requires reception of two complete series of FSK message tones, such impulse static disrupts the alert sequence, preventing the decoding of the "header" message that unlocks the decoder.

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<sup>13</sup> One brand of EBS decoder required the levels of the two-tone EBS signal to match perfectly, in order to be decoded. This caused missed alerts that would decode perfectly on other brands of decoders. However, this brand of decoder had other problems. Poor ventilation of the unit caused over-heating, drying out the filter cap in the 5 volt supply. The increased AC ripple would cause the decoder to miss alerts, or sometimes, false trigger. Neither problem was related to over-all modulation levels of the "alert" tones.

### **“Voluntary” EAS System**

23. As we noted above, EAS consists of two systems. Stations must now relay EAN and RMT codes, the “compulsory” system. They may also relay emergency alert codes generated by the national weather service, monitored broadcast stations, or other emergency alert sources, the “voluntary” system. Our decoder, a Gorman-Redlich, can be installed to automatically relay these codes, or merely turn on the front-panel speaker, and print out the alert message, depending upon the severity of the alert, and the programming of the decoder.

24. The NWS proposes to change several alert codes, in order to make these three-letter codes, as decoded, more accessible to the public. The NWS also proposes to add location codes, to cover areas off the coasts of the United States, including the Great Lakes. The Commission asks for comment on the possible costs involved in such changes. The Commission worries that the conversion costs would cause stations to forego the required upgrades to receive these new codes.

25. We are assuming that such an upgrade could be accomplished by a software upgrade to our decoder. We will forward a copy of these comments and the NPRM to Gorman-Redlich, in case that firm would have further comments. Because our station is only some 55 miles from Athens, Ohio, where this company is located, our only expense would be any charge levied by that company for the software upgrade. However, we can do our own engineering work. Many stations rely upon a contract engineer, and would have the expense of having that engineer uninstall the decoder unit, the expense of shipping the unit to the manufacturer for upgrades, the expense of any charges for that upgrade, and, finally, the expense for the contract engineer to reinstall and test the unit at the station.

26. Hence, it is likely that a number of stations would forego upgrades on their decoder units, if the NWS code set should change. Given the proliferation of radio groups, these code changes, though, may not have a significant impact on the voluntary relay of emergency traffic.<sup>14</sup>

#### **Quad Dimension Inc. Patent Claim**

27. There are more pressing threats to the voluntary emergency warning system. We would particularly note the recent partial approval by the U.S. Patent and Trademark Office of claims advanced by Quad Dimension Inc. (“QDI”) under U.S. Patent 5,121,430. Apparently, QDI has appealed the denial of certain portions of its patent claims by that office, staying the final acceptance of the patent. As reported by *Radio World*, and from a reading of the patent abstract, it appears to be QDI’s claim that they invented the concept of relaying emergency warnings to the public by means of codes carried by broadcast stations. Therefore, QDI claims that any broadcast station originating or relaying the EAS codes would be in violation of its patent. QDI has already approached a number of radio stations, seeking to compel those stations to purchase a license from QDI so that they can continue to use their EAS equipment. Recently, a spokesman for the company indicated that they would renew their efforts to collect license fees from broadcast stations, upon final approval of their patent claims by the Patent and Trademark Office.

28. As we note above, present Commission rules, particularly 47 CFR Sec. 11.51 and 11.61, require the relay and origination of certain tests and emergency messages using the EAS system and

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<sup>14</sup> More and more stations are programmed by voice-tracking automation systems, with the music stored on hard disk. Sometimes the announcers are not even in the station, their announcements are sent digitally to the computer system running the radio station. The industry trend seems to be to fire the air staff, but keep the engineering staff, to baby-sit all those hard-disk systems.

codes. Section 11.51(k)(1) requires unattended facilities to automatically relay other emergency messages, although most decoders allow some discretion as to which messages are relayed. These regulations, therefore, require broadcast stations and cable systems to infringe upon the broad patent claimed by QDI. This, in turn, leaves these stations and systems liable to QDI for claims of patent infringement if they continue to participate in the EAS system.

29. Upon the receipt of any such claim of patent infringement by QDI, we would immediately discontinue relaying of any local or state emergency messages using EAS codes. Since our stations are staffed full-time, we are not required to automatically relay most alerts, see 47 CFR Sec. 11.51(k)(1).<sup>15</sup> However, Section 11.51 would still require us to relay EAN/EAT- coded messages, as well as the required monthly test (“RMT”). Further, we would still be required to originate weekly tests of the EAS system, using this same code set. All of these activities would appear to be an infringement of the broad patent claimed by QDI, leaving us in the position of infringing the QDI patent, or operating in violation of FCC rules. Given the exorbitant fines levied for failure to test and maintain EAS equipment<sup>16</sup>, the FCC becomes the enforcer for QDI’s dubious patent claims.

30. Therefore Seven Ranges Radio Co., Inc. proposes the following:

A. As part of this proceeding, that the Commission amend its rules to allow any station or cable system in receipt of a notice of claimed patent infringement, (as the result of its use of the EAS system and codes); to discontinue the use of the EAS system (with the exception of the relay of national emergency notices and terminations); pending resolution of any such patent infringement claim.

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<sup>15</sup>Presumably, we could still use the decoder to listen to the alerts, then, make our own live announcement, without violating QDI’s patent.

<sup>16</sup>By creating an enforcement division, the Commission created a bureaucracy that needs to continually justify its existence. Perpetual existence is guaranteed to any Washington bureaucracy that can find another way to bring money into the government.

B. In the alternative, that the Commission open a new proceeding to address the issues raised by the patent claims of QDI. As part of that new proceeding, we would urge the Commission to consider the issuance of a new rule, as stated above in A..

### **Other Matters**

31. The NPRM asks for comments on the use of an "all-code" trigger for EAN's that would send alert codes to all counties programmed into the unit. Our understanding of our unit is that it would react to any EAN code, regardless of the location code embedded in the message. We have received RMT's which appear to carry embedded codes for counties that are not programmed into our unit.<sup>17</sup>

32. The notice also asks for comments about the addition of text messages to the alert codes. Our Gorman-Redlich unit allows the use of an external printer, providing that the printer responds to DOS commands. We recently installed a dot-matrix printer that can use fan-fold paper, rather than cut sheets, as the EAS unit does not supply page breaks. Hence, if the Gorman-Redlich unit could decode text messages, it would be a simple matter for our system to handle these additional text messages. We have been informed, however, that most new printers cannot understand the DOS code set used by the Gorman-Redlich decoder.

33. Some of the other EAS systems on the market use "cash-register" style printers, with a narrow printer embedded in the decoder unit. It would appear impractical to use text messaging with these systems, unless they, too, support outboard printers, or other devices that could process the text message. We recently read a brief article that indicates these units can be converted to use standard

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<sup>17</sup>Off West Virginia Public Radio station WVPG, which is programmed from Charleston station WVPN, and fed by satellite. The test, from WVPN, apparently carried codes for Kanawha County. This receiver was re-tuned to WOVK, Wheeling, which will be the monitoring assignment for our WNMR.

printers with the addition of a simple computer, such as a 486-series machine. However, for many stations without permanent engineering staff, such a modification may prove impractical. The value of text messaging is questionable for radio, except as an aid to live stations, (such as our station), that can edit and read the message. For cable systems, and TV stations, such additional information may be useful. For local emergency information, however, the use of a “broadcast” fax by emergency centers appears to be a more practical solution for the relay of detailed information, rather than relying exclusively on the EAS system.

### **Modernization of EAS Rules**

34. As we suggest above, perhaps a further NOI would be appropriate. Recently, we have had extensive correspondence with one of the organizers of the Washington State EAS system. In Washington State, they have apparently abandoned the “daisy-chain” of stations to relay statewide tests, and alerts. That system relies extensively on non-broadcast relay of tests and messages. The system also includes organizational districts that operate across state borders, rather than a monolithic state system. They have the advantage, of course, of being about 3,000 miles from Washington, D.C.

35. The SBE suggested that the Commission investigate methods of forcing greater participation by local stations in the “voluntary” EAS system. Commissioner Furchtgott-Roth suggests that elements of the present “voluntary” system should also be compulsory. We feel this would further discourage the few remaining local broadcasters from innovative uses of the EAS system for relay of local emergency traffic.

36. Although not mentioned in this NPRM, the SBE, in other forums, has proposed other, expanded codes, such as “Amber” codes for missing children. We would also caution against over-use of the system. The Commission notes that some stations have disconnected NWS weather radio

from their systems. NWS will, on occasion, have so many different alerts running that one alert will interrupt another in mid sentence. Often, these alerts will only inform the listener of the possibility of severe weather. On some summer days, without some discretion on our part, our station would do nothing but continuously relay weather alerts. The public would soon tire of such a constant bombardment, especially when only a summer shower materializes. Hence, they may fail to heed more serious warnings.

37. A closed-circuit system is better for traffic that is worthy of wider dissemination, but is not truly of an emergency nature, that is, an immediate threat to the health and safety of the general public. We have mentioned "broadcast" fax, FM sub carriers may work in some areas. Any broadcast traffic using EAS should be carefully edited to preserve the system for true emergencies.

38. The SBE also proposed dropping the EBS "alert" tones. We agree. These are "alert" tones by definition only. The general public pays no heed to what is perceived by them as a low buzz. A 1,000 cycle tone, especially if pulsed, compels more attention than the EBS tones. Since stations are no longer required to have receivers that will respond to the EBS "alert" signal, it serves no purpose.

### **Summary**

39. Although for us the change in certain event and location codes would appear not to be a problem, we are fortunate to be located close to the manufacturer of our equipment. We also handle most equipment maintenance in house. Many small stations must rely upon contract engineers, hence the inconvenience and expense of removing the EAS equipment, and returning it to the manufacturer would prove too daunting. As a result, some stations may well abandon the relay of local emergency messages from NWS, if the codes are changed.

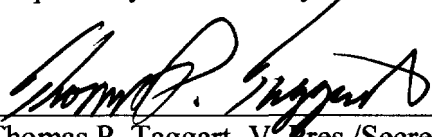


40. However, the threat of a patent infringement lawsuit would cause us to abandon the use of the EAS system as well. The Quad Dimension Inc. patent on the EAS system, when enforced, will place us, and many other stations, in an untenable position of either infringing their patent, or violating present Commission rules. The Commission should take steps to resolve this threat from QDI, in light of the partial approval by the Patent and Trademark Office of the broad QDI patent on emergency messaging through over-the air transmission of codes.

41. The Commission should, either by notice of further rule-making or NOI, re-evaluate the present rules regarding the transmission of EAN messages, and the related required monthly test. The Commission should especially consider the abandonment of the "daisy-chain" system, through state control centers, to relay these tests and messages.

42. Indeed, the Commission should abandon the requirement for stations to monitor according to a rigid state plan. Instead, for the EAN and RMT, it should be sufficient for a station to demonstrate that it can receive a monthly test from any source, especially a network source, in order to comply with the EAS rules. Further relay of the RMT then serves no purpose.<sup>18</sup>

Respectfully submitted by:

  
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Thomas P. Taggart, V. Pres./Secretary  
Seven Ranges Radio Co., Inc.  
P.O. Box 374  
St. Marys, W.V. 26170  
Tel. (304) 684-3400

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<sup>18</sup>Except as a "revenue enhancement." See footnote 16.